

ABSTRACT OF THE DISCLOSURE

A speech-based processing system includes a database of PIM data of a user, a set of language models, a learning unit, a recognition server, and a speech application. The learning unit uses a language model learning algorithm to
5 provide language models based on the PIM data. The recognition server recognizes an utterance of the user by using one of the language models. The speech application identifies and accesses a subset of the PIM data specified by the utterance by using the recognition result. The language model learning
10 algorithm may use grammar induction and/or or may train statistical language models based on the PIM data. The language model learning algorithm may be applied to generate language models periodically or on-the-fly during a session with the user.